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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,343	02/20/2002	John Boehnlein		9790

7590 12/16/2003

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EXAMINER

FREAY, CHARLES GRANT

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 12/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/081,343

Applicant(s)

BOEHNLEIN ET AL.

Examiner

Charles G Freay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19, 22-26 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-26 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 9-14, 16 and 18 is/are rejected.
- 7) ☐ Claim(s) 2, 4-8, 15, 17, 19 and 28-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

This office action is in response to the amendment of October 28, 2003 and the letter of November 7, 2003. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

### ***Claim Objections***

Claim 7 is objected to because of the following informalities: claim 7 should be dependant upon claim 1 so that there is clear antecedent basis for "the injector rings; In claim 1 the injector exhaust nozzles are described as offset radially at an angle away from and toward the engine longitudinal axis. As set forth the 35 USC 112, 2<sup>nd</sup> paragraph rejection in the first office action the injector exhaust nozzles are either offset towards or away from the longitudinal axis but not towards and away from the axis. The specification, and the applicant in his remarks, make it cleat that the exhaust nozzles are alternatively arranged towards and away from the longitudinal axis of the engine. The examiner suggest inserting the phrase alternatively into the claim language so that it is clear when reading the claim that nozzles which exhaust both towards and away from the longitudinal axis are not being claimed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 9-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boehnlein et al in view of Bichler et al as set forth in the first office action.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boehnlein et al in view of Bichler et al as applied to claim 1 and further in view of Hausmann as set forth in the first office action.

### ***Response to Arguments***

Applicant's arguments filed October 28, 2003 have been fully considered but they are not persuasive. The applicant's arguments relating to the rejection under 35 USC 112, second paragraph have been addressed in the above claim objection. Applicant's

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remarks with regards to the 35 USC 112, first paragraph rejection have overcome the rejection.

With regards to the 35 USC 103 rejection as being unpatentable over Boehnlein et al in view of Bichler et al the applicant makes the argument that the Bichler variable inlet is not designed for the ejector ramjet engine disclosed by the applicant. The applicant further recites the various flow and speed configurations which differentiate the two devices. While the examiner agrees with much of what the applicants argues with regards to the disclosures of the reference and the applicant's invention the examiner notes that the claims of the instant application do not limit the invention in a manner which would differentiate the two disclosures. The speed is only mentioned in the preamble in a use statement in claim 1 of the instant invention. Further, Boehnlein et al ('904) states that it is for use over the same speed range (note the Field of the Invention in column 1 of ('904)). Additionally with regards to claim 13 Boehnlein et al uses the same fuel in the same speed range so the examiner maintains this rejection. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the use of the engine throughout the noted speed range) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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With regards to claim 16 that the applicant argues that fluid flow is increased to the injector assembly as well as the use of a lean fuel to air ratio. The examiner notes that the steps set forth in the claims of "increasing...; and using..." are function steps which do not further limit the structure of the claim. Additionally the step of increasing fluid flow to the injector to increase "operating limits" is how all engines work. The examiner notes that "operating limits" is a broad term and can encompass a variety of conditions. In any engine the thrust is increased by increasing the flow of fuel and oxidizer to the engine. Therefore the functional limitations of the claim have been met.

With regards to claim 18 the applicant argues that Hausmann is related to a switch and does not inject fluid into the exhaust nozzle to modify the thrust vector. In column 2 lines 53-57 Hausmann states that a jet is emitted from the nozzle 24 for direction controlling (i.e. controlling the thrust vector) purposes.

***Allowable Subject Matter***

Claims 22-26 are allowed.

Claims 2, 4-8, 15, 17, 19 and 28-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

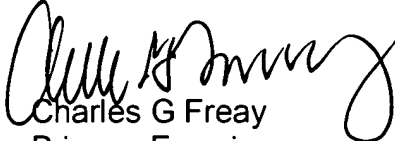
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G Freay whose telephone number is (703) 308-0639. The examiner can normally be reached on Monday through Friday 10:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (703) 308-2675. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

  
Charles G Freay  
Primary Examiner  
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CGF  
December 15, 2003